

BACKGROUND

According to ECDC data, the percentage of treatment success after 12 months among new and relapse TB cases notified during 2019-2020 in Ireland was below 5% compared to over 70% when combining all the EU/EEA countries.

This is attributed to paucity of data captured by the HPSC.

This audit aims to evaluate the treatment outcome of active mycobacterial cases and identify data gaps in Public Health.

METHODS

Patients at our tertiary site treated for TB and patients with positive mycobacterial cultures from January 2022 to December 2023 inclusive were included in the analysis. A retrospective review of paper and digital records was carried out to evaluate demographic data, HIV testing, site of disease, and details of treatment. Upon treatment completion, letters to Public Health, were reviewed via electronic system.

RESULTS

- 40 mycobacterial cases were studied.
- 53% (N=21) were males, mean age 39 years (range 18-78).
- The highest proportion of region of origin was Asia (N=17). **Fig 1**
- 97.5% cases had HIV testing done, positive (N=4); two were known prior, two were newly diagnosed.
- Sites of disease were extra-pulmonary 26 (65%), pulmonary 11 (27.5%), and both 3 (7.5%). **Fig 2**

- 4 cases were PCR positive **only**.
- 16 were positive by both PCR and culture.
- 10 were positive by culture **only**.
- 11 were not microbiologically confirmed. **Fig 3**
- Of the 26 culture positive cases, five were NTM and 21 were MTB complex. **Fig 4**
- 14 were pansensitive, and no RIF gene mutation detected in all samples.

- 31 cases underwent treatment; three died before treatment was commenced, three discontinued due to alternative diagnoses and three were NTM which did not meet criteria for treatment.
- Treatment was standard RHZE for 2 months followed by RH for 4 months in the majority of cases (N=21), of which four were treated with second-line regimen.
- Three were treated for 9 months with Rifampicin free regimens and seven received 12 months for CNS or disseminated disease.
- Treatment was well tolerated (N=19), transient side effects (N=8), and significant adverse effects such as DILI (N=3) and IRIS (N=2). **Fig 5**

Fig 1: Region of Origin

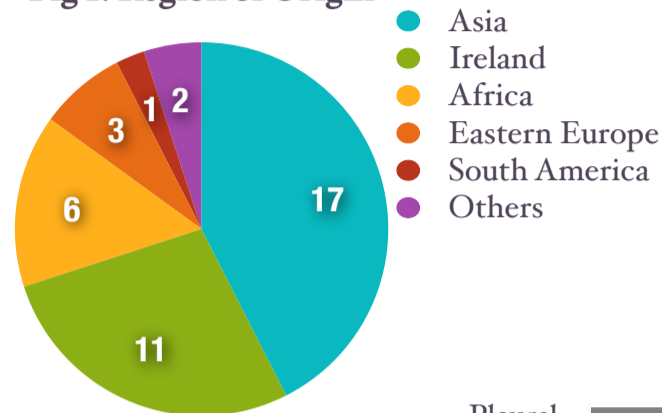


Fig 2: Site of TB

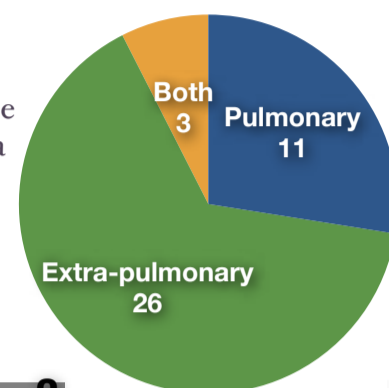


Fig 3

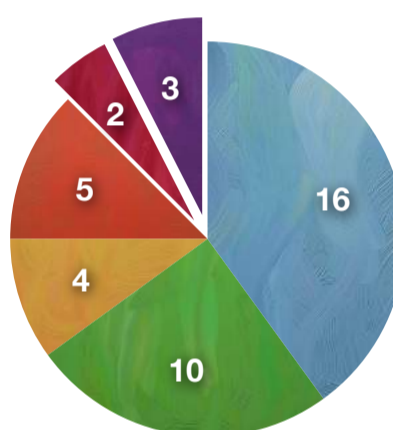


Fig 4

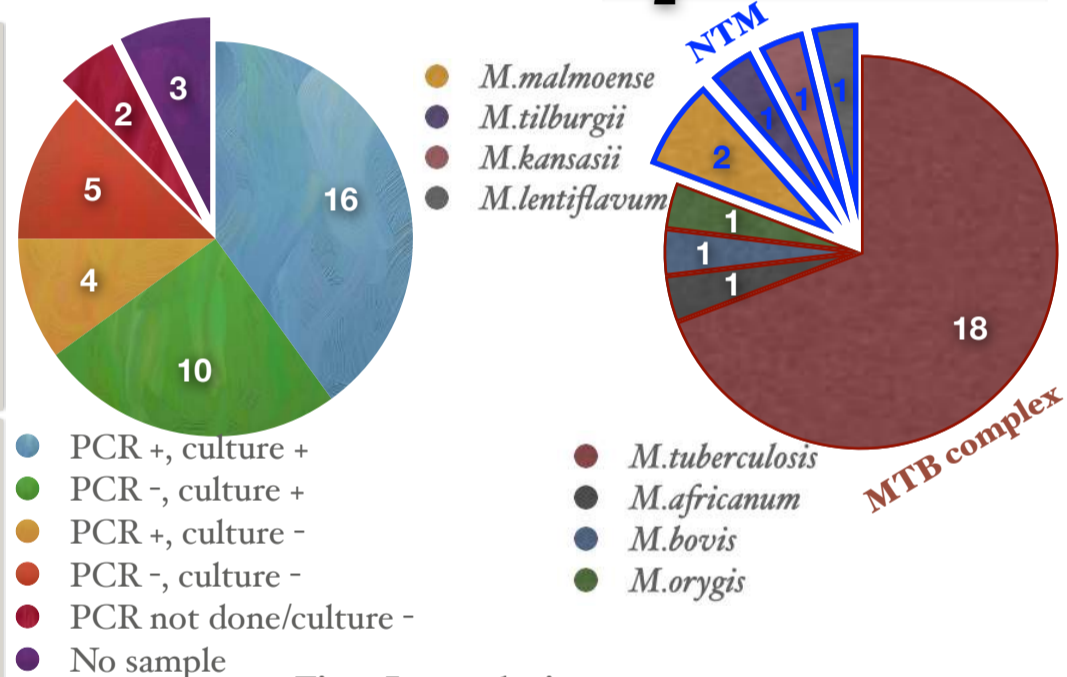
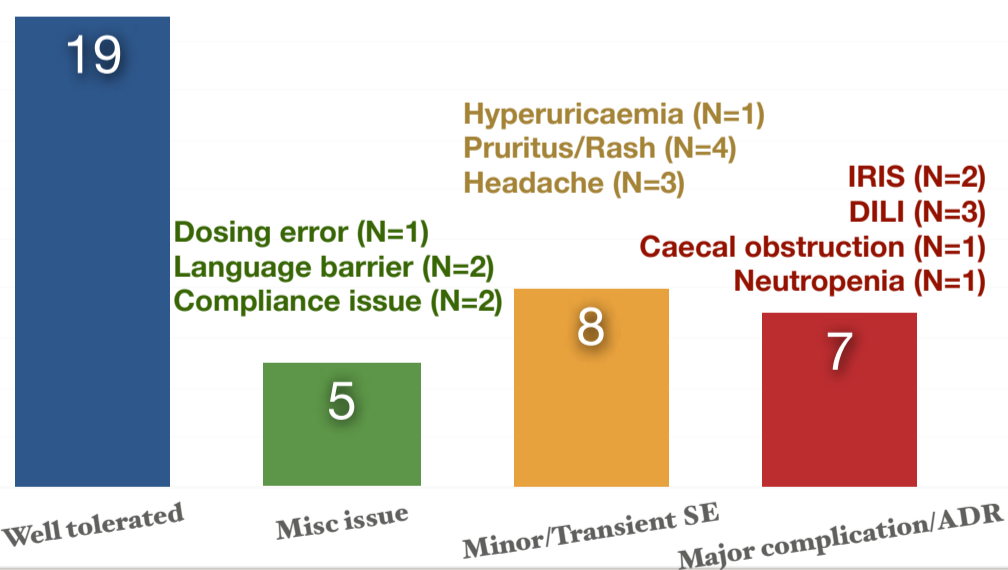


Fig 5: Issues during treatment



Out of the 23 cases who completed treatment, 11 had case closeout letter communicated to Public Health, of which five had missing information such as HIV testing and DST.

CONCLUSION

With a centralised TB/mycobacteria service, we seek to close the audit cycle more and establish new linkage with HPSC for data completion. This includes a case closeout template to Public Health. We appreciate the need for consistent audit of Mycobacterial database with regular reports, hospital clinical effectiveness report, linkage with laboratory to generate notifications of any positive, PCR or culture to clinic, and finally dedicated nursing team to increase compliance with standards and continue to maintain high level of retention in care.